

ABSTRACT

A method for the reduction of soluble aluminum species in an evaporated salt alkali metal halide brine containing up to 500 ppb aluminum species to provide a brine feedstock suitable for use in a chlor-alkali membrane cell process, said method comprising treating said brine with a magnesium salt in an amount to provide a Mg to Al molar ratio selected from 5 – 20 to 1 at a Mg concentration selected from 0.5 – 10 ppm, and sufficient alkali metal hydroxide to provide an excess alkalinity concentration of between 0.1 – 0.5 g/L alkali metal hydroxide to effect precipitation of a magnesium aluminum hydroxide complex; and removing said complex to provide said brine feedstock.